

# DEVELOPING ENVIRONMENTAL AWARENESS THROUGH OPEN AND DISTANCE LEARNING SYSTEM

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## **Abstract**

*The rapid developments and growing population in the world are of serious concern for environmental damages in the recent years. The environmental challenges faced by almost all countries due to pollution of water, air and soil are inestimable. In order to combat the menace of environmental pollution and human hygiene, there is huge need of mass awareness on the environment and use of natural resources among the society. The formal systems of environmental education cater only a part of the need and augment the research and developments. The Open and Distance learning system in the country has attained paradigm shift in the recent years and attracts many aspiring learners to modernize their skills and updating the curricular knowledge. Disseminating knowledge on the environmental safety issues and sustainable practices by many distance Universities have attracted learners to prepare themselves for safe use of environmental resources and particularly in the field of agriculture the concept of organic farming, integrated farming, green energy technologies etc have been yielding good results. The environmental education also provides the use of water and safety of drinking water quality parameters that every common citizen must capable of understand to combat on the diseases caused by unhygienic water resources due to industrial effluents. This paper focuses on the promotion of environmental education and awareness through open and distance education to the society and need of changes in the curricular structure, learner's models and other quality parameters so as to arrive better decision in making the fruitful efforts.*

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## **Introduction**

Environment always has inter-relationship with the humans and the changes that happen in the environment are most commonly due to man-made activities. The well developed countries have modernized practices to safeguard their environment but the effects on the environment brought up by them affects the peoples living in the under developing countries like hole in the ozone layer. The environmental problems are caused mainly due to overcrowded population, pollution, industrialization, depletion of natural resources, chemical hazards, deforestation, urbanization and global changes. Today the world is overcrowded and more polluted, ecologically fragile and vulnerable to many disruptions and disasters. The lacks of awareness on the safe use of natural resources among the peoples are now common for the enormous waste generation and pollution in the environment. Even though Environmental Education is playing vital role, it has not reached every corner of the society to make the environmentally responsible citizens to combat the menace of pollution and health hazards. The technology has attained major paradigm shift and the advancement of technology has reached almost many rural areas with regard to industrial and agriculture developments. In the changing era, the children and youth are to be well trained in the aspects of mitigating the environmental challenges so as to create a sustainable tomorrow. The young minds are to be inculcated the ethical values and positive attitude towards safe use of environment for making sustainability.

## **Environmental Education**

According to UNESCO (1977), Environmental education (EE) is aware about environment, and to comprise a lifelong comprehensive education, quick to respond for changes in a rapidly changing world.

The Environmental Education shall prepare the individual for safeguarding the life, through better understanding of the major problems of the current civilized world, and the prerequisite of skills and attributes

wanted to act in a productive role towards civilizing life and protecting the environment.

A clean and healthy environment is a question in the current developing world in order to safeguard the humans from the rapid developments that are taking place in the industrialization, urbanization and globalization. Our country is facing enormous changes due to over population, poverty and natural disasters.

Environmental detritions are many and several man-made activities, deforestation, extinction of many species of plants and animals, climate changes, pollution and thinning of ozone layer owing to global warming, raise in the sea levels are the indicators of changes in the nature. In order to survival of the future generations on the nature earth, a sound and better knowledge on the present status of environmental issues at the local level is imminent for the society so as to act upon the changes and to save the nature.

Environmental Education comprises of better understanding about the environment to know its basic concepts and its complex relationship with humans at the first level, in the second level the environment is to be used as a laboratory for investigation and making plans for better future and in the third level the sound awareness on the environment education is to be promoted for its values, ethics towards positive measures. (Source: Palmer, J. A., “Environmental Education: Structure and Practice”, Environmental Education in the 21st Century, 1998.)

### **Promoting Environmental Awareness through ODL**

The environmental education is being thought in school and college levels as mandatory curriculum. In the formal education system, the teacher and students interactions play a vital role in disseminating knowledge on environmental changes and positive reactions for the same.

At the field level many NGOs, Media and several individuals are playing crucial role in safeguarding the environment but due to lack of knowledge and manpower, there is a dearth need of effective environmental education which can be supplemented through Open and Distance Learning.

Today many Open and Distance Learning Universities in our country catering the needs of aspiring learners on environment science and environmental education related courses. But these courses are not sufficient to train the manpower requirement in the agriculture, Industries, NGOs etc. in order to meet the existing demands.

The ICT has been playing crucial role in dissemination of knowledge and resource sharing among the institutions. The use of ICT tools in Higher Education and ODL forms the basis in reaching the learners in efficient way and to provide best academic support. The awareness on various issues of environment and positive actions to be taken can be easily inculcated through ICT mediated distance learning system to reach every corner of the society.

Today the Distance learning institutions face challenges on competitive advantages and to develop courses that attract the learners to pave way for easily finding jobs in the competitive markets. Most of the Diploma and Certificate Courses offered by the Distance learning institutions have significantly attracted the graduate and post-graduate students of higher education to simultaneously pursue as add-on courses in order to upgrade their skills.

India is the country with mega diversity of flora and fauna and endowed with natural heritage and traditional knowledge. The country is well known for its native system of medicines like Naturopathy, Siddha and Ayurvedha etc., which are practiced since the long hundreds of years. There is a dire need of conservation of our own resources with regard to therapeutic medicinal plants life and for their sustenance to the next generation. The ecosystem has vast type of species of plants, animals and microorganisms, which needs to be conserved against the prevailing environmental pollution problems. The earth biosphere is facing challenges due to accumulation of toxic chemicals in soil, pollution of water air and soils, deforestation, soil erosion, climate changes, over use of natural resources and destruction of habitats and deforestation etc. Many species of animals became extinct due to man-made activities and vast decline of forest resources, waste accumulation and pollution. The agriculture in India facing challenges due to climate changes, soil erosion, water pollution, incessant rainfalls, floods, acidification of soils, enormous

use of pesticides and fertilizers, loss of biodiversity etc. and thus by understanding the ecological process and nature, the sustainable agriculture practices can be followed in the society. The environmental education to the farmers not only provides the real world issues, it will give the knowledge on the efficient resource utilization, alternative practices, organic farming, mixed farming, water conservation and rain water harvesting etc. towards accomplishing sustainability in agriculture.

Many NGOs working in the rural areas performing the works of constructing water sheds, check dams, percolation ponds and water harvesting ponds etc. however they face the lack of awareness from the public particularly on the environmental cleanliness and safety. Educating them with the use of non-formal distance education to have a wider accessibility can fulfill the laxity of the public on environmental awareness.

The health hazards in the urban and rural areas are now common due to lack of sanitation and the population faces variety of new diseases, which spreads and affects the common people. The public health workers, sanitary workers and local government organizations shall have the in depth knowledge on safety issues, waste disposal methods and standard environmental practices for safeguarding the society.

On the other hand laws governing the environmental problems plays vital role in safeguarding the environment, the people should have the access to legal knowledge on the environmental issues so as to fight for their rights.

### **Environmental Awareness by ODL Universities**

The distance education in the country has attained paradigm shift in the recent years, many states have Open Universities to cater the needs of aspiring learners of different age groups through non-formal system of education.

The Indra Gandhi National Open University (IGNOU) playing a key role in disseminating environmental awareness through its School of Agriculture and Chair for Sustainable Development (CSD) by offering innovative programmes in environment science for different segments of the society. The programmes offered are from the areas of sustainability

science, agricultural policy, nutrition security, wetlands developments, management of Ganga river, Himalayan ecosystem, organic farming, biodiversity, watershed management, rain water harvesting and environmental impact assessment (EIA) etc. besides IGNOU conducts different awareness cum training programmes towards sustainable agriculture in the country.

Many State Open Universities in India like Dr. B.R. Ambedkar Open University (BRAOU), M.P. Bhoj Open University, Nalanda Open University, Tamil Nadu Open University, Netaji Open University, Yashwantrao Chavan Maharashtra Open University, Kota open University and Karnataka State Open University etc. offers graduate programmes and certificate programmes in different areas of Environmental Science.

In the international scenario, many Open Universities like Allama Iqbal Open University, Srilanka Open University, UKOU, Hong Kong OU and China OU etc. developing environmental consciousness among the learners and certainly contributes major for environmental awareness among the learner community by offering several innovative programmes on environment and sustainability.

Besides the above the dual mode Universities offering several courses on environmental sciences and environmental economics etc. through their Distance Education Institutes. The disaster management courses offered by the ODL and DEIs in the country gives more benefit to the Government Officials and Security personnel and other related stake holders to mitigate the problems and to act upon quickly during the disasters. These courses are most suitable to the people those who are working in the similar areas and also to the persons working in the Non-Governmental Organizations to upgrade their skills for disseminating ideas and work for sustainability in the society.

Many Social science courses cover the major part of environmental issues in particular to extend the service in the area of rehabilitation, remediation techniques, public health hazards etc.

## **Strategies for Promoting Environmental Awareness through ODL Mode**

- More promotional activities are to be emphasized with the help of news and visual media to reach the very distant aspiring learners in rural areas.
- Pedagogy has to be improved as per the demand for the existing issues on environmental challenges by conducting various survey methods from learners.
- The teaching community is to be trained with the latest ICT developments and modern pedagogical techniques periodically to evolve suitable teaching strategies, counselling the learners, book writing and publishing.
- Enabling more access to the ICT mediated distance learning rather than face-to-face counselling will help the learners in identifying the issues and creative thinking towards positive approach in the field level.
- The evaluation system with regard to programmes related to environmental awareness must be well oriented with practical and training aspects in the field level besides counselling the learners.
- The support of the NGOs and certain training centres established for saving the motto of environment needs to be engaged for field level training with sharing of their resource and personnel.
- The performance outcome of the learners in the environmental science related courses at graduation level onwards can be measured by way of entrusting a project work in the curriculum.
- Teacher preparedness towards teaching in the distance settings is crucial with regard to the environmental awareness related courses. Periodical trainings/workshop on the latest issues for development of curriculum, instructional design, material development and evaluation methodology are very much important to the faculties engaged in distance education setup. Preparation of more field related courses on environmental issues to train the manpower in the NGOs and similar bodies to engage themselves in dissemination of information and awareness to young minds and school children are absolute necessary.

## **Conclusion**

The Science and technological developments have its impact on the environment, the society can control the environmental detritions and also can help to maintain the ecological balance through socio-economic and political conditions that ensuring the fulfillment of the requirements of the people. Various studies reveal that the human beings are unable to adjust with the changes happening in the environment due to their rapid modern lifestyles. In order to maintain the ecological balance, a systematic view or approach towards relatively good understanding of the reality environmental issues and responding to maintain the ecological balance between the humans and nature is absolute necessary. The hazardous waste materials produced by the industries are handled by the peoples without the awareness of their side effects which leads to numerous deaths every year. For instance the electronic waste materials are increasing day by day on the other hand lack of manpower for dealing with such kind of wastes and awareness on the effects caused by such wastes exist in the society.

The environmental curriculum through the distance learning will provide successful results in developing environmentally responsible citizens in the country if such curriculum has been designed to meet the existing demands with much practical orientation. The teaching community is to be provided ample number of opportunities for design and development of various courses on environmental issues, through various trainings, workshops and field level exposure. The NGOs working for the environmental safety shall extend their support to Distance Learning Institutions through coordination and training the learners at field level and extending job support to successful learners. The Ministry of Environment and Forest and similar state level ministries should extend financial scholarship to the distance learners pursuing environmental science related courses so as to produce large number of trained man powers in the country. Every Open University in the country shall have a separate school or department for environmental sciences and should have arrangements for sharing of resources like library, laboratories, faculties etc. with the other dual mode Universities on long run mode. The developments in MOOC and OER will definitely find a major place in the future ODL market and acts as a major alternative model for the



print based self learning materials, hence the huge cutting of trees for paper production will be minimized.

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